



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**HANAA ALY**



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# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

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علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**HANAA ALY**



# **The Role of MRI in Differentiation between Multiple Sclerosis and Neuromylitis Optica Spectrum Disorder**

*Thesis*

*Submitted for Partial Fulfilment of Master Degree in  
Radiodiagnosis*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا  
إلا ما علمتنا إنك أنت  
العليم الكبير

صدق الله العظيم

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# *List of Abbreviations*

| Abb.          | Full term                                        |
|---------------|--------------------------------------------------|
| ACA .....     | Anterior cerebral artery                         |
| ACHA .....    | Anterior choroidal artery                        |
| AICA.....     | Anterior inferior cerebellar artery              |
| AQP4 .....    | Antibodies against aquaporin 4                   |
| BBB .....     | Blood-brain barrier                              |
| BVR .....     | Basal vein of rosenthal                          |
| CIS.....      | Clinically isolated syndrome                     |
| CNS .....     | Central nervous system                           |
| CS .....      | Cavernous sinus                                  |
| CSE.....      | Conventional spin echo                           |
| CSF.....      | Cerebrospinal fluid                              |
| DIS.....      | Dissemination in space                           |
| DIT.....      | Dissemination in time                            |
| DMCV.....     | Deep middle cerebral vein                        |
| EBV .....     | Epstein–Barr virus                               |
| FID.....      | free induction decay                             |
| FLAIR.....    | Fluid-Attenuated Inversion Recovery              |
| FSE.....      | Fast (Turbo) Spin Echo                           |
| GRE .....     | Gradient echo                                    |
| ICA.....      | Internal carotid arteries                        |
| ICV.....      | Internal cerebral veins                          |
| IPND.....     | International Panel for NMO Diagnosis            |
| IR .....      | Inversion recovery                               |
| MAC.....      | Membrane attack complex                          |
| MAGNIMS ..... | Magnetic resonance imaging in multiple sclerosis |
| MCA.....      | Middle cerebral artery                           |

## *List of Abbreviations Cont...*

| Abb.            | Full term                                      |
|-----------------|------------------------------------------------|
| MOG IgG .....   | Myelin oligodendrocyte glycoprotein antibodies |
| MRI.....        | Magnetic resonance imaging                     |
| MS.....         | Multiple sclerosis                             |
| MSA & LSA ..... | Medial and lateral lenticulostriate arteries   |
| NMO .....       | Neuromyelitis optica                           |
| NMOSD .....     | Neuromyelitis optica spectrum disorder         |
| NMR .....       | Nuclear magnetic resonance                     |
| NMV .....       | Net magnetization vector                       |
| PCA.....        | Posterior cerebral artery                      |
| PCOM.....       | Posterior communicating artery                 |
| PICA .....      | Posterior inferior cerebellar artery           |
| PPMS.....       | Primary progressive multiple sclerosis         |
| RF .....        | Radiofrequency                                 |
| RIS.....        | Radiologically isolated syndrome               |
| SCA.....        | Superior cerebellar artery                     |
| SE .....        | Spin echo                                      |
| SLE.....        | Systemic lupus erythematosus                   |
| SMCV .....      | Superficial middle cerebral veins              |
| SSS .....       | Superior sagittal sinus                        |
| T1WI.....       | T1-weighted imaging                            |
| T2WI.....       | T2-weighted imaging                            |
| TE .....        | Echo time                                      |
| TR.....         | Time to repeat                                 |

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